

Notice of Allowability

Application No.

10/678,562

Examiner

Robert Shiao, Ph. D.

Applicant(s)

HEINTZELMAN ET AL.

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to responses filed on 03/29/2006.
2. ☒ The allowed claim(s) is/are 1-3, 8-9, and 18, now are 1-6.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. Amendment of claim 1 and cancellation of claims 4-6, 12-17, and 19-26 in the amendment filed on March 29, 2006, is acknowledged. Claims 1-3, 7-11, and 18 are pending in the application.

Responses to Amendment

2. Since the variable X of formula (I) does not represent CH₂, therefore, the rejection of claims 1-3, 7-11, and 18 under 35 U.S.C. 102 (a) or (b) has been overcome in the amendment filed on March 29, 2006.

3. Since the variable R₂ of formula (I) does not represent C1-8 alkylthio or NR₂₄R₂₅, and the variable X of formula (I) does not represent CH₂, therefore, the rejection of claims 1-3, 7-11, and 18 under 35 U.S.C. 103(a) has been overcome in the amendment filed on March 29, 2006.

4. Since the provisional rejection of claims 1-3, 7-11, and 18 under obviousness-type double patenting over Heintzelman et al. co-pending application No. 11/170,484, is the only remaining rejection, therefore, the provisional rejection of claims 1-3, 7-11, and 18 under obviousness-type double patenting, has been withdrawn herein.

EXAMINER'S AMENDMENT

5. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an

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amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Peter L. Herridge on May 04, 2006. The application has been amended as follows:

In claim 1, lines 5-6, after "optionally substituted aryl", delete "optionally substituted heteroaryl, optionally substituted heterocyclyl and"

In claim 1, line 7, after "arylsulfonyl,", insert
--and--

In claim 1, lines 9-16, delete "with the proviso that the heteroaryl or heterocyclyl group is not furyl, pyridyl or thiazole, wherein R_{24} and R_{25} are independently selected from H, C_{1-8} straight or branched chain alkyl, arylalkyl, C_{3-7} cycloalkyl, carboxyalkyl, aryl, heteroaryl, and heterocyclyl or R_{24} and R_{25} taken together with the nitrogen form a heteroaryl or heterocyclyl group, with the proviso that the heteroaryl or heterocyclyl group is not furyl, pyridyl or thiazole,"

In claim 1, page 3, line 22, after "heterocyclyl group", insert
--, wherein the heteroaryl or heterocyclyl of R_3 is selected from the group consisting of piperidine, morpholine, pyridine and piperazine thereof--

In claim 1, page 3, line 30, after "aryl", delete "and heteroaryl"

In claim 1, page 4, line 9, after "benzyl,", insert

--and--

In claim 1, page 4, lines 9-13, after "aryl", delete ", heteroaryl, or NR₂₂R₂₃ taken together from a heterocycle or heteroaryl; with the proviso that one or more of X, R3 or R4 is indepenuently, heteroaryl or heterocyclyl, or one or more of variable X, R3 or R4 is independently substituted with heteroaryl or heterocyclyl"

In claim 3, line 1, after "aryl", delete "or heteroaryl"

Delete claims 7, and 10-11

Reasons for Allowance

6. The following is an examiner's statement of reasons for allowance:

Claims 1-3, 8-9, and 18 are neither anticipated nor rendered obvious over the art of record, and therefore are allowable. This invention relates to arylindenopyridines and arylindenopyrimidine and related therapeutic and prophylactic methods. The closest reference is Watanabe et al. JP 08240921, which discloses electrophotographic photoreceptor containing diazafluoroenone compound as charge-transporting agent. The difference between instant claims and Watanabe et al. is that the instant compounds of formula (I) were not disclosed by Watanabe et al. A suggestion for modification of the above reference to obtain the instant compounds/compositions has not been found. Claims 1-3, 8-9, and 18 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

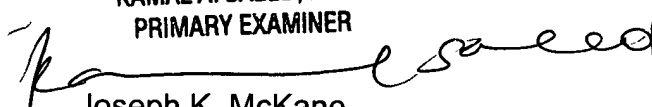
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Shiao whose telephone number is (571) 272-0707. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on (571) 272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

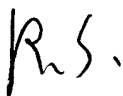
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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KAMAL A. SAEED, PH.D.
PRIMARY EXAMINER

A handwritten signature in cursive script, appearing to read "Joseph K. McKane", written in dark ink.

Joseph K. McKane
Supervisory Patent Examiner
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A handwritten signature in cursive script, appearing to read "R. Shiao", written in dark ink.

Robert Shiao, Ph.D.
Patent Examiner
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May 04, 2006